



Project PROTEUS SENSE

Plug-and-play, low-power sensing platform
for port surveillance in harsh marine
environments



 **smart**
advanced manufacturing

ORGANISATION PROFILE

Name: BioBright Ltd, United Kingdom. [SME, founded in 2021. Led by Vanessa Giorgia Barzasi, CEO and Co-Founder and Ayrton Louis Antoine Barzasi CTO and Co-Founder.

Personnel and size: 7 employees.

Products and technical areas: marine environmental monitoring systems for ports and harsh marine environments: sensing, low-power electronics and field deployment. Our KIDA monitoring system and Atlantis platform are at TRL6.

R&D project expertise: BioBright took part in the TREASURE project (Interreg Euro-MED Programme) and in several R&D projects in the UK. BioBright has access to ports in Europe where systems can be tested in real conditions.

PROPOSAL INTRODUCTION (I)

Vision. Make environmental monitoring in ports as simple as possible: a plug-and-play, very low-energy sensing platform where every sensor module identifies itself and works without manual setup.

Motivation. Changing a sensor today means a technician, rewiring and manual recalibration, and always-on sensing drains batteries, so nodes cannot run unattended for long. Ports and other marine operators need lower maintenance cost, freedom from vendor lock-in and autonomy where there is no mains power.

Content. A common power and data interface with automatic sensor detection, and sensor modules that carry their own identity and calibration data. An ultra-low-power architecture (power gating, duty cycling). Marine-grade connectors and a design ready for manufacturing, a pilot series, and validation in real European ports.



PROPOSAL INTRODUCTION (II)

Expected outcome. A plug-and-play, low-energy sensing platform: a sensor node with swappable, self-identifying sensor modules, built as a pilot series and validated in real ports TRL6. Targets: sensor swap in under 10 minutes and 12 months of battery autonomy.

Impacts. Lower lifetime cost for users, a new product line for the partners and an open interface other sensor makers can adopt. The same platform serves aquaculture, offshore, rivers and wastewater. Within 3 years of project end: 2 new jobs, 1M€ sales and 1 patent application.

Schedule. Target call: Xecs Call 6 (Project Outline 21 January 2027, Full Project Proposal 15 April 2027 if invited). Estimated start [Q3-Q4 2027], duration [36] months.

PARTNERS

Current consortium. BioBright Ltd (coordinator, United Kingdom): sensing system, port access for validation. No other partners confirmed yet; being recruited at the Xecs matchmaking event, Vienna, 6-7 October 2026.

Partner search: any Eureka country.

Large companies: components producer (connectors, power management) or a marine and port technology company.

Research institutes: low-power embedded systems, anti-fouling, sensor validation.

Other: port authorities and operators, in several countries, for validation and end-user needs.



CONTACT INFO

Contact info for BioBright:

Vanessa Giorgia Barzasi,
CEO and Co-Founder,

v.barzasi@biobright.co.uk





www.smarteureka.com